

REMARKS

Examiner Kelly L. Jerabek is thanked for the thorough examination and search of the subject Patent Application.

Claims **1, 8** and **26** have been amended. New claims **27-35** have been added.

All Claims are believed to be in condition for Allowance, and that is so requested.

Reconsideration of rejected claims **1 - 8, 10 – 16**, and **26** under 35 U.S.C. 103(a) as being unpatentable over Narayanaswami et al (US pub. 2003/0011684), hereinafter Narayanaswami, in view of Inoue et al. (US 6,273,535), hereinafter Inoue, is requested based on amended claims 1, 8 and 26 and on following remarks:

The amended claim **1** of the claimed invention teaches:

1. (currently amended) A method of embedding camera information and image capture related information in a digital form of an image, comprising:
  - receiving information on a first static camera characteristic suitable to enhance image reproduction;
  - receiving information on a first static camera characteristic **suitable to identify a single camera that is the source of the image by embedding unique single camera characteristics**;
  - receiving camera setting information related to a first captured digitized image;
  - generating an encryption key based at least in part on the first static camera characteristic;
  - embedding a watermark in said first captured digitized image, wherein the watermark contains at least a portion of the information on the first static characteristic and at least a portion of the camera setting information related to said first captured digitized image; and
  - encrypting the watermark using the encryption key.

Narayanaswami does neither disclose “**receiving information on a first static camera characteristic suitable to enhance image reproduction**”, nor “receiving information on a first static camera characteristic **suitable to identify a single camera that is the source of the image by embedding unique single camera characteristics**” as the claimed invention does in base claim 1.

Inoue discloses in his **Fig. 1** that image data sensed by a digital camera, input device type unique information and image additional information are stored **separately** in a camera in **three different memories**, while the claimed invention discloses “A method of **embedding camera information** and image capture related information in a digital form of an image”, i.e. the claimed invention stores camera information and image capture information **embedded in an image**.

Inoue discloses (col. 4, lines 5-18):

“The digital camera 1 stores input-device-unique information unique to the device in a **status memory 4**. Also, the digital camera 1 photoelectrically converts an image into an electrical signal using a CCD and the like, and holds a plurality of images as digital image data in an **image memory 5**. At the same time, the digital camera 1 stores the input states of the individual images held in the image memory 5 and parameters of color processing and the like executed in the digital camera in an image additional information **memory 6** as image additional information 11. Such information is stored in a **RAM** or a nonvolatile **RAM**, or a magnetic storage medium or magnetooptical recording medium.”

This means that according to Inoue’s invention the printer must be **directly attached** the digital camera because the image data are stored in a memory of the camera.

It has to be noted that Inoue does not “receiving information on a first static camera characteristic **suitable to identify a single camera that is the source of the image by embedding unique single camera characteristics**”

Inoue discloses in his **Fig. 2** that the digital input device unique information includes **camera type information**, but no information suitable to identify a **single camera that is the source of the image taken**, as the claimed invention does.

It has to be noted that Inoue does not disclose:

1. “receiving information on a first static camera characteristic **suitable to identify a single camera that is the source of the image by embedding unique single camera characteristics**;
  2. “receiving camera setting information related to a first captured digitized image;”
  3. “generating an encryption key based at least in part on the first static camera characteristic;”
  4. “embedding a watermark in said first captured digitized image, wherein the watermark contains at least a portion of the information on the first static characteristic and at least a portion of the camera setting information related to said first captured digitized image; and”
  5. “encrypting the watermark using the encryption key”
- as the claimed invention does in claim 1.

Summarizing applicant believes that Inoue discloses a non-analogous art because Inoue teaches a camera wherein input device unique information, the image sensed and additional information are stored in **three different memories** and the printer has to be **directly attached** to the camera, while the key point of the claimed invention is

**“embedding** camera information and image capture related information in a digital form of an image”.

In regard of claim 1, **none** of the applied or known references address the claimed invention as disclosed in claim 1 in which a method comprising “receiving information on a first static camera characteristic **suitable to identify a single camera that is the source of the image by embedding unique single camera characteristics**” is described as the claimed invention does in base claim 1, therefore applicant believes that a combination of the applied or known references would not yield the claimed invention.

Furthermore it should be noted that a combination of the invention of Narayaniswami, disclosing a method automatically watermarking recorded parameters for providing digital image verification, with the invention of Inoue, disclosing an image forming system, is believed not to be obvious because it is known in the art that the amount of information, which can be stored in a watermark is some orders of magnitudes smaller than the amount of information which can be transferred by a direct link as e.g. a cable disclosed by Inoue.

To achieve the method of claim 1 of the claimed invention, which includes camera information and image capture related information in association with a digital form of an image, comprising “receiving information on a first static camera characteristic **suitable to enhance image reproduction;**” and “receiving information on a first static camera characteristic suitable to identify a **single camera** that is the source of the image by

**embedding unique single camera characteristics;**” it would be not be obvious to combine the invention of Narayanaswami disclosing “a system and methods for digital image **verification**” with the invention of Inoue et al. disclosing a system wherein “a digital camera stores input-device-unique information” and “the digital camera is connected to a printer by, e.g., an IEEE1394 I/F”. The claimed invention is believed to be patentable over the prior art cited, as it is respectfully suggested that the combination of these various references cannot be made without reference to Applicant's own invention. None of the applied references address or suggest a “receiving information on a first static camera characteristic **suitable to identify a single camera that is the source of the image by embedding unique single camera characteristics**” while this is an important feature of the claimed invention. Applicant has claimed his methods in detail.

Claims **2-7** are dependent claims upon base claim **1**, which is believed to be patentable according the arguments above.

The amended Claim **8** of the claimed invention teaches:

- 8.** (currently amended) A digital camera system, comprising:
- an imager;
  - a first static camera characteristic associated with the imager in regard of enhancing image reproduction;
  - a first static camera characteristic associated with the imager in regard of identifying a single camera that is the source of an image by embedding unique single camera characteristics;
  - a first variable camera setting;
  - a watermark generator used to embed in the form of a watermark at least one of said first static camera characteristic and said first variable camera setting information in an image captured by the camera; and
  - a key generator configured to generate an encryption key used to

encrypt the watermark.

The same arguments apply for claim 8 as for claim 1 discussed above. Neither Narayanaswami nor Inoue disclose “a first static camera characteristic associated with the imager in regard of identifying a single camera that is the source of an image by embedding unique single camera characteristics” as disclosed in claim 8 of the claimed invention.

None of the applied or known references address the claimed invention as shown in claim 8 in which a digital camera system comprising “a first static camera characteristic associated with the imager in regard of identifying a single camera that is the source of an image by embedding unique single camera characteristics” is described.

To achieve the camera system of claim 8 of the claimed invention, which includes camera information and image capture related information in association with a digital form of an image and a watermark generator, comprising “a first static camera characteristic associated with the imager in regard of identifying a single camera that is the source of an image by embedding unique single camera characteristics”, it would be not be obvious to combine the invention of Narayanaswami et al. disclosing “a system and methods for digital image verification” with the invention of Inoue et al. disclosing a system wherein “a digital camera stores input-device-unique information and “the digital camera is connected to a printer by, e.g., an IEEE1394 I/F”. The claimed invention is believed to be patentable over the prior art cited, as it is respectfully suggested that the combination of these various references cannot be made without reference to Applicant's own invention. None of the applied references address or suggest a comprising “a first static camera characteristic

associated with the imager in regard of identifying a single camera that is the source of an image by embedding unique single camera characteristics” while this is an important feature of the claimed invention. Applicant has claimed his camera system in detail.

Claims **10-16** are dependent claims upon base claim **8** which is believed to be patentable according the arguments above.

The amended claim **26** of the claimed invention teaches:

- 26.** (currently amended) A method of including camera information and image capture related information in association with a digital form of an image, comprising:
- capturing an image;
  - digitizing the image;
  - receiving information on a first static camera characteristic suitable to enhance image reproduction;
  - a first static camera characteristic associated with the imager in regard of identifying a single camera that is the source of an image by embedding unique single camera characteristics;
  - receiving camera setting information related to a first captured digitized image;
  - inserting in a data set associated with the digitized image at least a portion of the information on the first static characteristic; and
  - transmitting the digitized image and the data set to an image processor.

The same arguments apply to claim **26** as outlined above for claim **1**.

The systems and methods of Claims **1-16** and **26** are believed to be novel and patentable over these various references as outlined above because there is not sufficient basis for concluding that the combination of claimed elements would have been obvious to

one skilled in the art and would yield the claimed invention. We believe that there is **no such basis for a combination**. We therefore request Examiner Kelly L. Jerabek to reconsider the rejection in view of these arguments.

Reconsideration of rejected claim **9** under 35 U.S.C. 103(a) as being unpatentable over Narayanaswami et al (US pub. 2003/0011684), in view of Inoue et al. (US 6,273,535) and further in view of Isnardi et al. US 6,037,984 is requested based on amended claim **8** and on following remarks:

Claim **9** is a dependent claims upon base claim **8** which is believed to be patentable according the arguments above.

New claims 27 to 35 have been added:

- 27.**(new) The method as defined in Claim 1, wherein said unique single camera characteristics comprise an image capture device serial number.
- 28.**(new) The method as defined in Claim 1, wherein said image capture related information comprises information about the user who has taken an image.
- 29.**(new) The method as defined in Claim 28, wherein said user information comprises a user identification.
- 30.**(new) The camera system as defined in Claim 8, wherein said unique single camera characteristics comprise an image capture device serial number.
- 31.** (new) The camera system as defined in Claim 8, wherein said image capture related information comprises information about the user who has taken an image.
- 32.**(new) The camera system as defined in Claim 31, wherein said user information comprises a user identification.



- 33.(new) The method as defined in Claim 26, wherein said unique single camera characteristics comprise an image capture device serial number.
- 34.(new) The method as defined in Claim 26, wherein said image capture related information comprises information about the user who has taken an image.
- 35.(new) The method as defined in Claim 34, wherein said user information comprises a user identification.

No new matter has been added. The new claims are supported by the description (p12, first paragraph):

“Other useful information may also be included in the watermark or otherwise provided with images taken by the image capture device. For example, **the image capture device serial number, user information**, such as user ID, name, and/or contact information, and time and date information, may be included in the watermark.”

Furthermore the description of the claimed invention discloses (p2, 4<sup>th</sup> paragraph):

“One embodiment of the present invention can embed in images authorship and/or source information. For example, a user identifier associated with the image taker may be embedded in corresponding images. In addition, information identifying the image capture device, such as serial number or substantially unique camera characteristics, may be embedded in images captured with image capture device.”

Applicants have reviewed the prior art made of record and not relied upon and have discussed their impact on the present invention above.

Allowance of all Claims is requested.

It is requested that should the Examiner not find that the Claims are now allowable that the Examiner call the undersigned at 845-452-5863 to overcome any problems preventing allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'S. Ackerman', with a stylized flourish extending to the right.

Stephen B. Ackerman, Reg. No. 37,761